

mentioned, - 128 November 20 is the only one where the conditions are such that, if there was totality at the Hellespont, a good estimate of the magnitude at Alexandria would be four-fifths. In particular, in order to identify this eclipse with - 309 August 15, or - 103 July 19, we have to suppose that the estimated magnitude was a digit too large; if with - 173 October 10, three-quarters of a digit too small. It must, however, be borne in mind that any formulæ whatever lead to the conclusion that in lunar eclipses magnitudes are occasionally a digit wrong; and further (though I do not agree) that Professor Newcomb has stated that the probable error of a magnitude of a lunar eclipse is more than one-tenth part of the Moon's diameter (*M.N.*, lxvi. p. 472).

Note on the value of the obliquity used in the conversion of the Moon's ecliptic into equatorial coordinates. By A. M. W. Downing, D.Sc., F.R.S.

The point having been raised as to the value of the obliquity adopted in the *Nautical Almanac* calculations for the conversion of the Moon's longitude and latitude into the corresponding right ascension and declination, it may be advisable to state specifically what values have been adopted at different periods since the introduction of Hansen's Tables into the *Nautical Almanac*. This seems to be the more desirable as Hansen, at the end of his tables, gives facilities for the calculation of R.A. and Dec., thus suggesting the possibility that these subsidiary tables may have been used in the conversion throughout the whole period. The following statement will, I hope, obviate any further possible misunderstanding on the subject.

Period.	Authority for Obliquity.
1862-1874	Hansen.
1875-1900	Le Verrier.
1901 onwards	Newcomb.

1909 June 9.

Ephemeris of Flora near the time of Opposition in 1909.

By A. M. W. Downing, D.Sc., F.R.S.

This ephemeris is computed from Brünnow's *Tafeln der Flora*, in combination with the corrected continuation of certain of the tables published in *Monthly Notices*, vol. lxiv., No. 6.

Berlin, Midnight, 1909.		Apparent						Log Distance from Earth.	
		R.A.			Dec.				
		h	m	s	°	'	"		
November	1	3	54	36.63	+	9	18	49.2	9.95786
	2		53	47.38			16	37.7	.95660
	3		52	56.42			14	31.0	.95544
	4		52	3.85			12	29.7	.95438
	5		51	9.78			10	33.9	.95342
	6		50	14.32			8	44.3	.95256
	7		49	17.62			7	0.8	.95180
	8		48	19.75			5	24.0	.95115
	9		47	20.76			3	54.6	.95061
	10		46	20.78			2	32.5	.95018
	11		45	19.97			1	18.4	.94987
	12		44	18.38		9	0	12.0	.94966
	13		43	16.18		8	59	13.8	.94956
	14		42	13.55			58	25.1	.94958
	15		41	10.56			57	45.8	.94972
	16		40	7.34			57	15.9	.94996
	17		39	3.95			56	55.0	.95032
	18		38	0.58			56	44.6	.95079
♂	19		36	57.36			56	44.5	.95137
	20		35	54.42			56	54.8	.95207
	21		34	51.81			57	15.6	.95288
	22		33	49.61			57	46.9	.95379
	23		32	48.00			58	28.8	.95481
	24		31	47.10		8	59	22.0	.95594
	25		30	47.02		9	0	26.3	.95718
	26		29	47.83			1	41.7	.95853
	27		28	49.54			3	8.2	.95998
	28		27	52.38			4	45.8	.96152
	29		26	56.42			6	34.6	.96317
	30		26	1.75			8	34.7	.96492
December	1		25	8.43		10	45.9		.96677
	2	3	24	16.46	+	9	13	8.1	9.96871